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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/732,704	12/11/2000	Yasuhiko Muramoto	Q62122	2918

7590

07/16/2004

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3202

EXAMINER

MENBERU, BENIYAM

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 07/16/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/732,704

Applicant(s)

MURAMOTO, YASUHIKO

Examiner

Beniyam Menberu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for priority under 35 U.S.C. 119(a)-(d) based upon an application filed in Japan on 12/10/1999. A claim for priority under 35 U.S.C. 119(a)-(d) cannot be based on said application, since the United States application was filed more than twelve months thereafter.

Specification

2. The abstract of the disclosure is objected to because it contains more than 150 words. Correction is required. See MPEP § 608.01(b).
3. The abstract of the disclosure is objected to because it contains the term "said". Correction is required. See MPEP § 608.01(b).
4. The disclosure is objected to because of the following informalities: The terms "Even in the even" on page 4 line 27 should be "Even in the event". On page 16, line 3, "Fig. 516" should be "Fig. 3".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claim 1, 2, and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5774634 to Honma et al. in view of U.S. Patent No. 5019896 to Shimazaki.

Regarding claims 1,2, and 4 Honma et al. discloses a color image apparatus (Figure 4, reference 1,2) with an image receiver (Figure 4, reference 1) and a discriminator (Figure 4, reference 2) that discriminates between halftone (column 9, lines 30-32) and multiple gradation image (column 6, lines 6-10). The input images can be characters or lines, which are classified under binary (column 5, lines 64-67) and 256 gradation images (column 6, line 10).

Honma et al does not disclose an apparatus for applying conversion to halftone image for images discriminated as multiple gradation image and an apparatus for driving halftone image to an image output device.

Shimazaki discloses a halftone conversion apparatus (Figure 5, reference 102,103) and a driving device (Figure 5, reference 104) for image output.

Honma et al and Shimazaki are combinable because they are from the similar problem solving area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the output of the discrimination apparatus of Honma et al to the input of the halftone conversion apparatus wherein the halftone discriminated images are inputted to the image output driving section of Shimazaki (Figure 5, reference 104) and the multiple gradation images discriminated by the apparatus of

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Honma et al are inputted to the conversion processing section of Shimazaki (Figure 5, reference 102).

The motivation to combine the reference is to provide a multiple gradation to halftone converter and output section thereby allowing all images output by the Honma et al – Shimazaki combination to be printed on a bi-level printer.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5774634 to Honma et al. in view of U.S. Patent No. 5019896 to Shimazaki further in view of U.S. Patent No. 6347153 to Triplett et al.

Regarding claim 3, Honma et al in view of Shimazaki disclose an image processing apparatus comprised of image receiver, image discriminator, halftone image converter, and a driver for an image output device.

Honma et al in view of Shimazaki does not disclose an image receiver which inputs image containing information indicating if it is halftone or multiple gradation image and a discriminator that discriminates images using this information.

Triplett et al discloses a method for applying tagging information to image sections, which are used to classify the image types such as halftone or continuous tone (column 27, lines 17-20; column 2, lines 33-35). Triplett further teaches to use the tags in the system for classification of the images (column 27, lines 50-60).

Honma et al in view of Shimazaki and Triplett are combinable because they are from the similar problem solving area of image classification or discrimination.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to implement the tagging method disclosed by Triplett to use as a discrimination method in the system of Honma et al in view of Shimazaki.

The motivation to combine the reference is because tagging the input image with image type information will make it easier to implement the discrimination unit.

8. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5774634 to Honma et al. in view of U.S. Patent No. 5019896 to Shimazaki further in view of U.S. Patent No. 5361142 to Semasa.

Regarding claims 5 and 6, Honma et al in view of Shimazaki disclose an image processing apparatus comprised of image receiver, image discriminator, halftone image converter, and a driver for an image output device.

Honma et al in view of Shimazaki does not teach a software program to implement the processing of the image processing apparatus.

Semasa discloses an apparatus that outputs images of different types. Semasa further teaches that the processing can be performed using software (column 9, lines 28-30).

Honma et al in view of Shimazaki and Semasa are combinable because they are from the similar problem solving area image outputting systems.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to implement the apparatus disclosed by Honma et al in view of Shimazaki using a software program as taught by Semasa.

The motivation to combine the reference is clear because in a CPU environment it is practical to implement software program to perform the processing.

Other Prior Art Cited

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent Application Publication No. US 2002/0051145 discloses an apparatus for processing color images.

U.S. Patent No. 5956156 discloses an apparatus for discriminating between pseudo-half-tone and non half-tone images.

U.S. Patent No. 5982508 discloses an apparatus for converting between binary and multi-value image.

U.S. Patent No. 5784488 discloses an apparatus for processing of continuous tone and binary image.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beniyam Menberu whose telephone number is (703) 306-3441. The examiner can normally be reached on 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on (703) 305-4863. The fax phone

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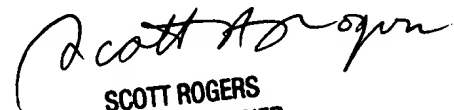
number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (703) 306-5631. The group receptionist number for TC 2600 is (703) 305-4700.

Patent Examiner

Beniyam Menberu

07/09/2004


SCOTT ROGERS
PRIMARY EXAMINER